

REMARKS

Applicants request favorable reconsideration and allowance of this application in view of the foregoing amendments and the following remarks.

Claims 1, 2, 4-6 and 10-20 are pending in this application. Claims 10-12, 14-16 and 20 stand withdrawn. Claims 1 and 13 are the independent claims under consideration.

Claims 3 and 7-9 have been cancelled without prejudice. Claims 1, 4-6 and 13 have been amended. Applicants submit that support for the amendments can be found in the original disclosure, and therefore no new matter has been added.

Claims 1-4, 6, 7, 9, 13 and 17-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent Publication No. 2003/0012406 to Iwamura in view of US Patent Publication No. 2003/0025805 to Yamagishi. Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwamura and Yamagishi, and further in view of US Patent Publication No. 2003/0133591 to Watanabe et al. Claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwamura and Yamagishi, and further in view of US Patent No. 6,532,541 to Chang et al. Applicants respectfully traverse these rejections for the reasons discussed below.

As recited in independent Claim 1, the present invention includes, *inter alia*, the features of generating watermark information which contains a binary image of a first region of an original image and additional information, generating error-correction encoded watermark information of the watermark information, reconstructing the error-correction encoded watermark information by varying an arrangement order of each bit which forms the error-correction encoded watermark information, and outputting an image formed by replacing image information of a second region in the original image with the reconstructed watermark

information. With these features, a position in the original image where tampering has occurred can be detected correctly, and the error at the detected position where tampering occurred can be corrected. Applicants submit that the cited art fails to disclose or suggest at least the above-mentioned features of Claim 1.

The cited reference to Iwamura discloses a check-bit used for checking an error. However, the check-bit is merely used for checking an error, not used for detecting a position in an image where tampering has occurred and correcting an error at the detected position. Even if using the check-bit, a position in the original image that was tampered with cannot be detected correctly, and an error at the tampered position cannot be corrected.

Thus, the cited reference to Iwamura fails to teach or suggest an arrangement of the invention as defined in claim 1.

The cited reference to Yamagishi merely discloses a capturing element for converting an optical image to electrical signals, and fails to teach or suggest an arrangement of generating a binary image of a first region in an original image. Accordingly, Applicants submit that Yamagishi, as well as the other cited art, fails to remedy the deficiencies of Iwamura.

In view of the foregoing, Applicants submit that the present invention recited in independent Claim 1 is patentable over the art of record. Independent Claim 13 recites features similar to those of Claim 1 discussed above and is patentable for reasons similar to Claim 1.

The dependent claims are patentable for at least the same reasons as the independent claims, as well as for the additional features they recite.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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